FTMW SPECTRA OF $CH_3OC(O)NCO$ AND $CH_3OC(O)N_3$

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The rotational spectra of methoxycarbonyl isocyanate ($CH_3OC(O)NCO$) and methyl azidoformate ($CH_3OC(O)N_3$) in the ground vibrational state were observed by molecular beam-Fourier transform microwave spectroscopy. Observed spectral lines for *a*-type transitions were assigned. Splittings of the spectral lines were observed by the internal rotation of the CH_3 group and the hyperfine structure of the ^{14}N atom. Comparison of the observed spectroscopic constants with the calculated ones led to the conclusion that the assigned spectrum was due to the *syn-syn* form that NCO or N_3 group. Determined parameters by the spectral analysis of methoxycarbonyl isocyanate were rotational, centrifugal distortion and nuclear electric quadrupole coupling constants including the potential barrier V_3 to internal rotation of the methyl group. At this stage, we could not analyze the complicate nuclear electric quadrupole coupling splittings of the observed spectrum of methyl azidoformate due to the hyperfine structure.